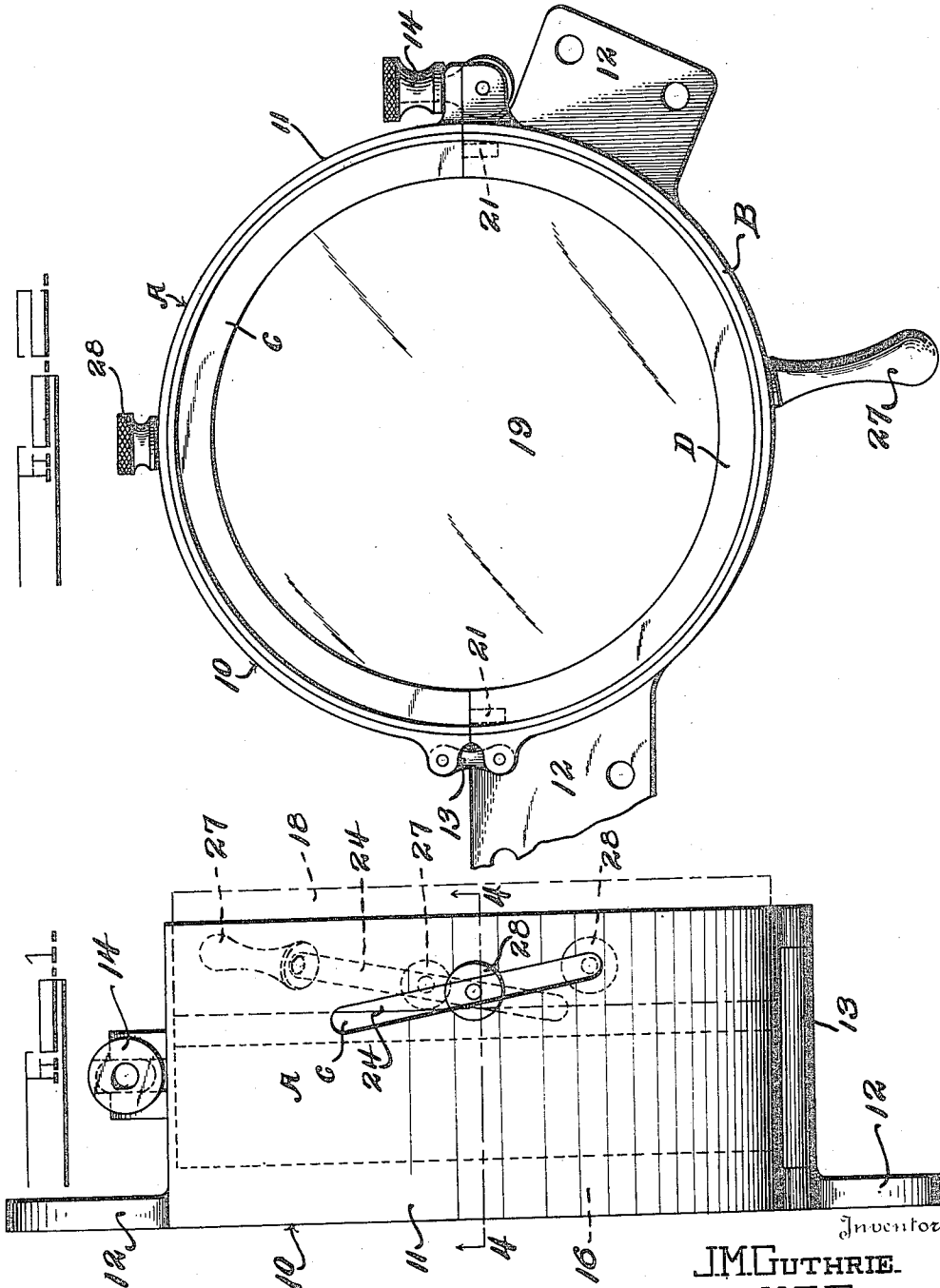


J. M. GUTHRIE & H. G. POST.
CONDENSING LENS MOUNT.
APPLICATION FILED DEC. 16, 1914.

Patented Aug. 24, 1915.
2 SHEETS—SHEET 1.

1,151,008.



Witnesses

S. S. Davis
Melvin Willis

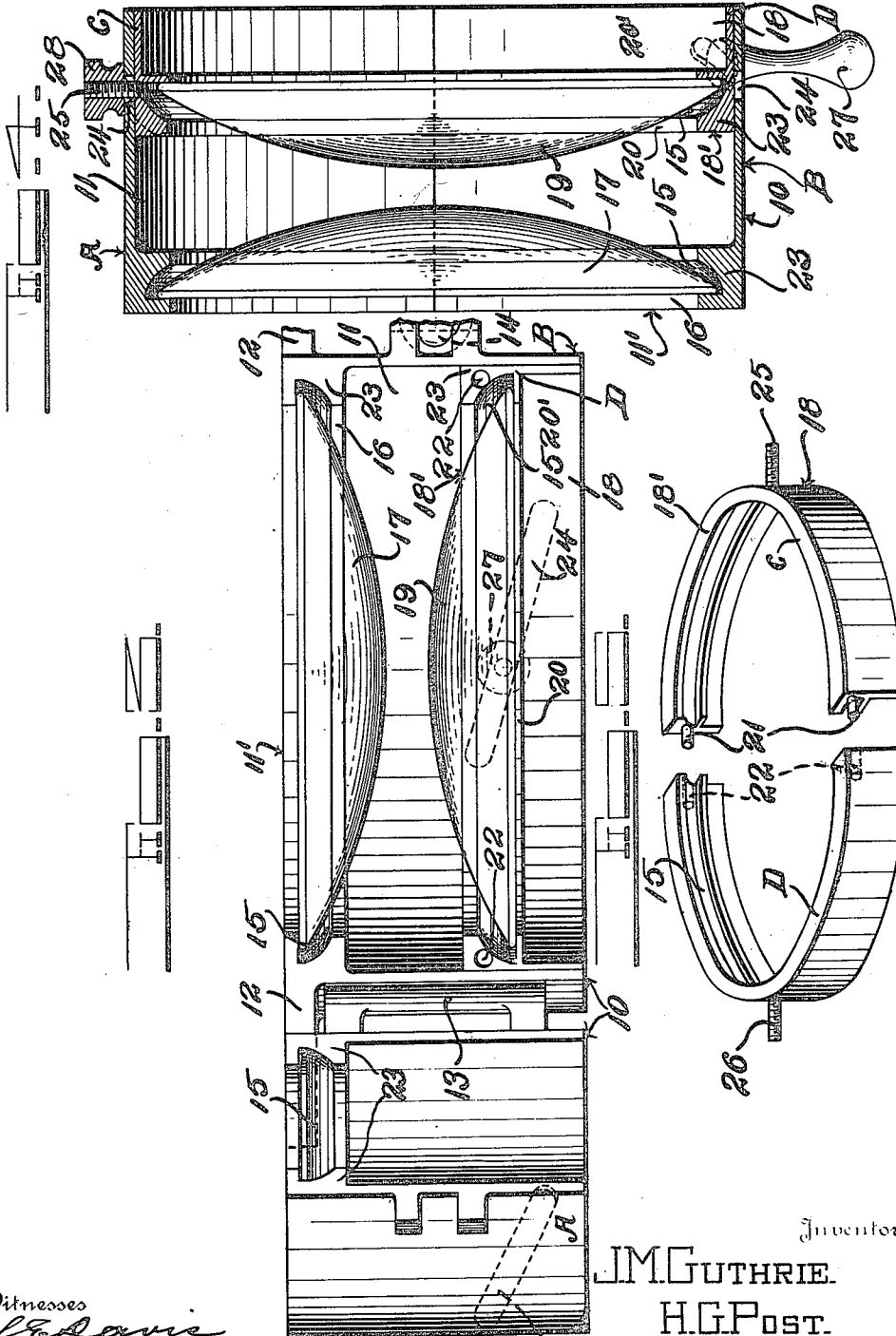
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1,151,008.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN M. GUTHRIE AND HARRY G. POST, OF GROVE CITY, PENNSYLVANIA.

CONDENSING-LENS MOUNT.

1,151,008.

Specification of Letters Patent. Patented Aug. 24, 1915.

Application filed December 16, 1914. Serial No. 877,526.

To all whom it may concern:

Be it known that we, JOHN M. GUTHRIE and HARRY G. POST, citizens of the United States, residing at Grove City, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Condensing-Lens Mounts, of which the following is a specification.

This invention relates to new and useful improvements in lens mounts and more particularly to a condensing lens mount adapted for use in connection with motion picture projection machinery or in any case where a condensing lens is used singly or in multiple in connection with an electric arc lamp or any source of light from which the heat causes the lens breakage.

An object of this invention is to provide a positive means for preventing the breakage of lens such as is caused from the heat produced by the lamp, the prevention of such breakage being accomplished by the provision of heavy metal rings or the like encircling the outer edges of said lens these rings being so constructed as to allow for the expansion of the glass lens in heating up and also by the provision of a considerable bulk of metal in close proximity with the edges of the lens, this bulk of metal being provided to hold the heat longer than the lens and to radiate some of this heat to the glass lens in the process of cooling thus providing heat for the thinner edges of the glass lens and generally causing the glass to cool slowly and evenly.

Another object of this invention is to provide a means for holding the lenses in pairs so the same will always stand parallel to each other, this being accomplished by the construction of the rings or like in which the lenses are mounted in such a manner so as to always assume a position parallel to each other from their own weight.

A further object of this invention is to provide a suitable and simple means for adjusting the lens so as to obtain the desired distance therebetween, this being accomplished by the rear lens being mounted in its respective ring which is formed therefrom a tubular casing proper, while the

front lens is mounted in a similar band ring which telescopes the tubular casing at the forward end thereof. The forward and rearward movement of this last mentioned lens is accomplished by means of an operating handle substantially secured to the said ring and guided in the desired direction by means of a plurality of spiral slots cooperating with the same.

A still further object of this invention is to provide a means whereby access to the lens may be readily obtained should the same require cleaning or replacing and this is accomplished by constructing the tubular casing proper and ring formed therefrom of the two parts joined by a suitable hinge and held substantially together when desired by a suitable locking means. The front and telescoping ring is also constructed of two parts substantially held in alinement with each other by means of lugs formed upon one section thereof and fitting snugly into recesses formed in the other section thereof. Thus it will be readily understood that when the hinged upper section of the tubular casing proper is raised the upper section of the telescoping ring may then be readily removed and both lenses will then be exposed for cleaning or removal as desired.

With the above and other objects in view this invention resides in the novel feature of construction, formation, combinations, and arrangement of parts to be hereinafter more fully described, claimed, and illustrated by the accompanying drawings in which:

Figure 1 is a top plan view of our lens mount. Fig. 2 is a front elevation of the same. Fig. 3 is a top plan view of the same with upper section raised. Fig. 4 is a sectional view of our lens mount taken on line 4-4 of Fig. 1. Fig. 5 is a perspective view of the telescoping metal band ring removed.

Referring to the accompanying drawings by similar characters of reference for corresponding parts throughout the different views the numeral 10 designates in general our improved lens mount which is composed of a tubular casing 11 having the customary extensions 12 formed thereon by

which the same is substantially secured to the desired picture machine or the like not illustrated in the accompanying drawings. This tubular casing 11 is equally divided into an upper section A and a lower section B both of which are joined together at one side thereof by a suitable hinge 13, while their opposite sides are substantially locked together when desired by a suitable locking means 14. Formed on the inner terminal of this tubular casing 11 is a flange 11' having a groove 15 formed therein thus producing a metal ring 16 in which is loosely mounted the rear lens 17, while telescoping the forward end of the casing 11 is a metal band ring 18 having a similar flange 18' formed thereon at the inner end thereof and having a similar groove 15 formed therein for the reception of the front lens 19 which is also loosely mounted therein, thus producing a second ring 20, the forward end of which extends considerably in advance of the ring 20 proper, as indicated by the numeral 20'. This band ring 18 is also equally divided into an upper section C and lower section D both of which are held substantially in alinement to each other by means of lugs 21 substantially extending from the lower ends of the section C and snugly fitting into recesses 22 formed in the upper ends of the lower section D. Both of these metal rings 16 and 20 are so constructed as to have the bulk of the metal composing the same in close proximity with the edges of the lens as clearly illustrated by Fig. 4 of the accompanying drawings and designated by the numeral 23 the object of which having previously been stated.

Formed in the upper section A of the tubular casing 11 and in the lower section B are suitable means 24 through which project studs 25 and 26 substantially secured to the upper and lower sections C and D of the band ring 18. Substantially secured to the stud 26 is an operating handle 27 while secured to the stud 25 is a thumb screw 28 thus it will be readily understood that the handle 27 and thumb screw 28 cooperating with the means 24 provided by the upper section A and lower section B of the tubular casing 11 produce a means whereby the band ring 18 may be moved inwardly or outwardly as desired by the operating handle 27 this feature being clearly illustrated by Fig. 1 of the accompanying drawings which shows the band ring 18 in its outmost position, in dotted lines. It may be further stated that the thumb screw upon being tightened to its full extent will produce a locking means for the band ring 18 thus preventing the undesired movement of the same.

To gain access to this lens mount is very simple, as the operator merely has to re-

move the thumb screw 28 from the stud 25, then upon releasing the locking means 14 of the tubular casing 11, the upper section A of the casing may then be raised and the upper section C of the band ring 18 removed therefrom thus allowing free access to both lenses whereby the same may be cleaned or removed as desired.

When this mount is in an operative position and it is desired to move the front lens outwardly the operator simply moves the operating handle 27 in the direction clearly illustrated by Fig. 1 of the accompanying drawings and shown by dotted lines, and should the reverse movement of the lens be desired it may be readily obtained by reversing in movement the operating handle 27. Thus the desired effect either way is gradually obtained. This telescoping movement of the front lens is readily obtained through the coöperation of the spiral slots 24 of the tubular casing 11 with the thumb screw 28 and operating handle 27, the spiral slots 24 serving as a guide means for the same which feature is also clearly illustrated by Fig. 1 of the accompanying drawings.

It is now thought that the above description of the operation of our lens mount together with the accompanying drawings is sufficient to give those familiar with this art a clear idea as to the construction and operation of the same. It should be understood, however, in this connection that various minor changes in the details of construction may be resorted to within the scope of the appended claims, without departing from or sacrificing any of the advantages of this invention.

From the foregoing disclosure taken in connection with the accompanying drawings, it will be manifest that we have provided a condensing lens mount which will fulfil all of the necessary requirements of such a device, and which may be adapted for use wherever the services of such a device are required.

Having thus fully described this invention, what we claim and wish to protect by Letters Patent is:

1. A lens mount comprising a tubular casing, a means provided by said tubular casing whereby access to the interior of the same may be obtained, a means for loosely mounting therein a plurality of lenses, a means for moving one of the said lenses therein and a means for substantially locking the said tubular casing.

2. A lens mount comprising a tubular casing a ring formed therefrom the inner terminal thereof and having a groove formed therein for the reception of a lens, a band ring telescoping the said tubular casing and having a groove formed therein for the re-

ception of another lens, a means provided
by the tubular casing and the band ring
whereby access to both lenses may be ob-
tained, a means for substantially locking
5 the said tubular casing, and band ring there-
in and means for slidably operating the
said band ring therein.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

JOHN M. GUTHRIE.
HARRY G. POST.

Witnesses:

E. F. ATWELL,
C. G. HARSHAW.